Begin

Reel # 269

Krylova, O.A.

KRYLOVA, O. A.; NIKISHINA, T. M.; SHILYAGI.IA, N. N.; VOLOKHOV, A. A. (Moskva)

K voprosu o stanovlenii i razvitii retikulyarnoy formatsii stvola golovnogo mozga v ontogeneze.

report submitted for the First Moscow Conference on Reticular Formation, Moscow, 22-26 March 1960.

KRYLOVA, O. I.

"Characteristics of the clinic of typhoid-paratyphoid diseases
in syntomycin treatment."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

SOKOLOVSKAYA, Ya.I.; KOZLOVA, A.A.; SMIRNOVA, S.A.; KRYLOVA, O.M.;
GLAZKOVA, T.S.; ALEKSANDROVA, V.R.; KAPETANAKI, K.G.

Viacheslav Viktorovich Kosmachevskii; on his 75th birthday. Zhur.
mikrobiol., epid.i immun. 33 no.4:154-155 Ap '62.   (MIRA 15:10)
(KOSMACHEVSKII, VIACHESLAV VIKTOROVICH, 1887-)

KRYLOVA, O.M.

Changes in the sensitivity of typho-paratyphoid pathogens during treatment with some antibiotics. Trudy LSGMI 46:169-177 '59.

(MIRA 13:11)

1. Kafedra infektsionnykh bolezney Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof. V.V. Kosmachevskiy i kafedra mikrobiologii (zav. kafedroy - prof. M.N.Fisher).

(SALMONELLA TYPHOSA)   (SALMONELLA PARATYPHI)
(ANTIBIOTICS)

KRYLOVA, O.M.

    Treatment of typhoid fever with synthomycin. Trudy LSGMI 46:178-
184 '69. (MIRA 13:11)

    1. Kafedra infektsionnykh bolezney Leningradskogo sanitarno-
gigiyenicheskogo meditsinskogo instituta (sav. kafedroy - prof.
V.V.Kosmachevskiy).
        (CHLOROMYCETIN)   (TYPHOID FEVER)

KRYLOVA, O.M.

Effectiveness of levomycetin in the treatment of typhoid and para-
typhoid diseases. Zdrav. Bel. 5 no.5:9-11 My '59   (MIRA 12:8)

1. Kafedra infektsionnykh bolezney Leningradskogo sanitarno-gigiyeni-
cheskogo meditsinskogo instituta (zaveduyushchiy kafedry - prof. V.V.
Kosmachevskiy)na baze bol'nitsy im. S.P. Botkina (glavnyy vrach.M.M.
Figurina).
         (TYPHOID FEVER) (PARATYPHOID FEVER)
              (CHLOROMYCETIN)

MAKAROVA, Yu.I.; KRYLOVA, O.M.

Use of Galperin's method in diagnosing infectious diseases.
Zhur.mikrobiol.epid. i immun. 30 no.5:140 My '59.
(MIRA 12:9)

1. Iz Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo
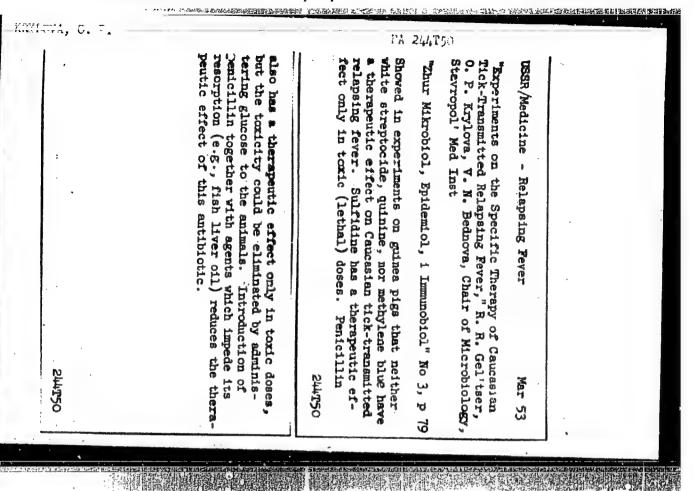instituta.
(DIAGNOSIS)

KRYLOVA, O.M.

Urine color sedimentation test in typhoid and paratyphoid diseases treated with antibiotics. Kaz.med.zhur. 40 no.3: 35-38 My-Je '59.

(MIRA 12:11)

1. Iz kliniki infektsionnykh boleaney (zav. - prof.V.V.Kosma-chevskiy) Leningradskogo sanitarno-giglyenicheskogo meditsinskogo instituta, na baze bol'nitsy im. S.P.Botkina (glavvrach - M.M. Figurina).

(URINE--ANALYSIS AND PATHOLOGY)
(TYPHOID FEVER)
(ANTIBIOTICS)

KRYLOVA, O. M., Cand Med Sci (diss) -- "The effect of antibiotics on the clinical manifestations of typhus-paratyphus infections". Leningrad, 1960. 21 pp (Min Health RSFSR, Leningrad Sanitary-Hygiene Med Inst), 300 copies (KL, No 14, 1960, 137)

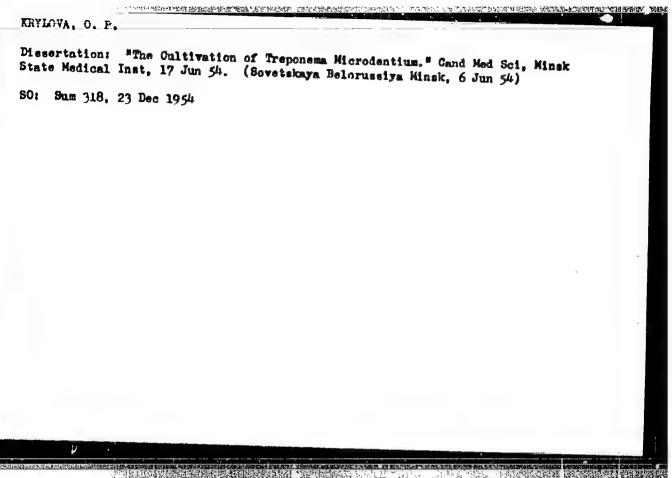KRYLOVA, O. P.

PA 244T50

USSR/Medicine - Relapsing Fever   Mar 53

"Experiments on the Specific Therapy of Caucasian
Tick-Transmitted Relapsing Fever," R. R. Gel'tser,
O. P. Krylova, V. N. Bednova, Chair of Microbiology,
Stavropol' Med Inst

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 3, p 79

Showed in experiments on guinea pigs that neither
white streptocide, quinine, nor methylene blue have
a therapeutic effect on Caucasian tick-transmitted
relapsing fever. Sulfidine has a therapeutic ef-
fect only in toxic (lethal) doses. Penicillin

244T50

also has a therapeutic effect only in toxic doses,
but the toxicity could be eliminated by adminis-
tering glucose to the animals. Introduction of
Penicillin together with agents which impede its
resorption (e.g., fish liver oil) reduces the thera-
peutic effect of this antibiotic.

244T50

KRYLOVA, O. P.

USSR/Medicine - Modification of
          Microorganisms   Nov 53

"Data on the Investigation of Spirochete Granules.
Granules of Tick-Born Spirochetes of Caucasian
and Central-Asiatic Relapsing Fever as Non-
Cellular Forms of These Spirochetes," R. R. Gel'-
tser, O. P. Krylova, Chair of Microbiol, Stavropol'
Med Inst

Zhur Mikro, Epid, i Immun, No 11, pp 21-23

Transformation into filterable microgranules has
been established not only in the case of bacteria,
but also with reference to various species of

271T35

spirochetes. Although the existence of granules
of various sizes formed from spirochetes or con-
tained in the bodies of spirochetes was known for
a long time, their significance was not apparent.
It has now been found that after complete dis-
appearance of relapsing fever spirochetes, these
microorganisms develop again, apparently from the
grains composed of noncellular matter.

271T35

KHYLOVA, O.P.

Experiments in isolating pure cultures of Spirochaeta microdentium;
preliminary report. Zhur.mikrobiol.epid.i immun. no.11:56-60 N '53.

(MLRA 7:1)

1. Iz kafedry mikrobiologii (zaveduyushchiy - professor R.R.Gel'ttser)
Stavropol'skogo meditsinskogo instituta (direktor - dotsent P.V.Polosin).
(Spirochaeta microdentium)

KRYLOVA, O. P.

Dissertation: "The Cultivation of Treponema Microdentium." Cand Med Sci, Minsk
State Medical Inst, 17 Jun 54. (Sovetskaya Belorussiya Minsk, 6 Jun 54)

SO: Sum 318, 23 Dec 1954

USSR/Microbiology - General Microbiology.   F-1

Abs Jour   : Ref Zhur - Biol., No 11, 1958, 47672

Author   : Gol'tsar, R.R., Krylovo, O.P.
Inst   : -
Title   : Materials on the Study of Spirochete Granules. Communica-
               tion II. Some Conditions Resulting in the Appearance of
               Granules on the Tick-Borne Spirochetes of Recurrent
               Typhoid Fever.

Orig Pub   : Zh Mikrobiol. Epideniol, i Immunobiol. No 8, 91-97 (1956).

Abstract   . The appearance of granules in spirochetes, which the
               authors consider as generative, pre- or noncellular forms,
               from which coiled or cellular forms can develop on trans-
               plantation (ZhMEI, 11, 21-23 (1953)), is induced by 10%
               NaHCO$_3$ solution, 10% KU solution, and 10-50% glycerine
               solution, as well as by various dyes--methylene blue,
               gentian violet, acid and basic fuchsin, neutral red, and
               eosin ⌐TN: it is not clear whether the appearance of
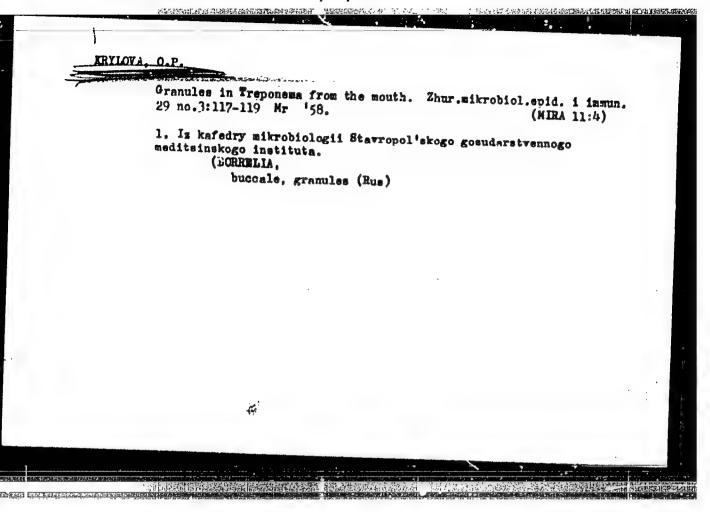
Card 1/2

GEL'TTSER, R.R.; KRYLOVA, O.P.

Materials on the study of granules of spirochetes. Report no.2:
Some conditions inducing the appearance of granules of tick-borne
spirochetes of Caucasian and Central Asiatic relapsing fever.
Zhur.mikrobiol., epid. i immun. 27 no.8:91-97 Ag '56. (MIRA 9:10)

1. Iz kafedry mikrobiologii Stavropol'skogo meditsinskogo instituta.
     (BORRELIA,
          recurrentis, form. of granules of tick-borne strains (Rus))

GEL'TTSER, R.R.; KRYLOVA, O.P.

Cultivation of different strains of tick-borne spirochetes of the Caucasian and Central Asiatic forms of relapsing fever. Med.paraz. i paraz.bol.supplement to no.1:49 '57.   (MIRA 11:1)

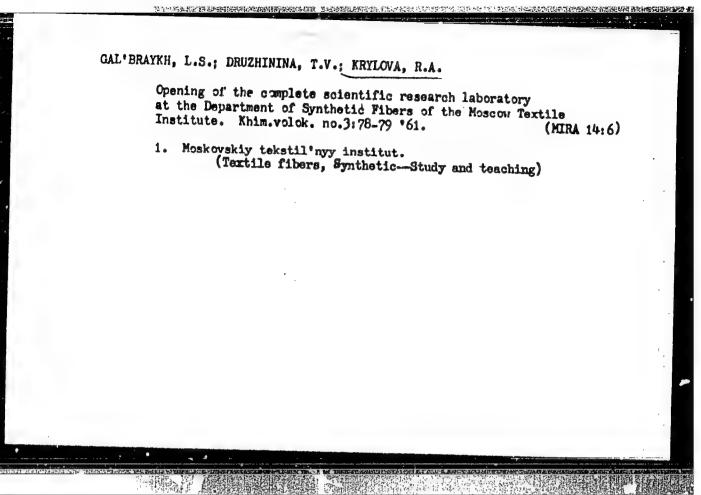1. Iz kafedry mikrobiologii Stavropol'skogo meditsinskogo instituta. (SPIROCHAETA)

GEL'TTSER, R.R.; KRYLOVA, O.P.

Data on granules of spirochetes. Report No.3: Antigenic properties
of granules of Spirochetes of Caucasian tick-borne recurrent typhus.
Zhur.mikrobiol.epid. i immun. 28 no.9:65-66 S '57.   (MIRA 10:12)

1. Iz kafedry mikrobiologii Stavropol'skogo meditsinskogo instituta.
      (RICKETTSIA PROWAZEKI,
          antigenic properties of granules from strains causing
          Caucasian tick-borne recur. typhus (Rus))

KRYLOVA, O.P.

Granules in Treponema from the mouth. Zhur.mikrobiol.epid. i immun.
29 no.3:117-119 Mr '58. (MIRA 11:4)

1. Iz kafedry mikrobiologii Stavropol'skogo gosudarstvennogo
meditsinskogo instituta.
(BORRELIA,
buccale, granules (Rus)

KRYLOVA, O.P., dotsent

Further observations on the use of the flocculation reaction with the protein of cultured Treponema pallidum for sero-diagnosis of syphilis. Uch. zap. Stavr. gos. med. inst. 12:172-173 '63.

Observations on the cultivation of spirochetes of tick-borne relapsing fever of the Caucasian and Central Asian forms. Ibid.:174-175   (MIRA 17:9)

1. Kafedra mikrobiologii (zav. prof. R.R. Gel'tser) Stavropol'-skogo gosudarstvennogo meditsinskogo instituta.

KRYLOVA, O.P.

Observations on the cultivation of the spirochote of the Caucasian and Central Asian forms of tick-borne relapsing fever. Mod. paraz. i paraz. bol. 32 no.6:659-660 N-D '63   (MIRA 18:1)

1. Iz kafedry mikrobiologii Stavropol'skogo meditsinskogo insti-tuta.

KONKIN, A.A.; KRYLOVA, R.A.; ROGOVIN, Z.A.

Effect of intermolecular interaction on the resistance of the gluco-
side bond in a cellulose macromolecule, to the action of hydrolyzing
reagents. Koll.zhur. 15 no.4:246-251 '53.   (MLRA 6:8)

1. Moskovskiy tekstil'nyy institut. Kafedra iskusstvennogo volokna.
                                (Cellulose) (Hydrolysis)

Kaylarz, R A

GAL'BRAYKH, L.S.; DRUZHININA, T.V.; KRYLOVA, R.A.

Opening of the complete scientific research laboratory
at the Department of Synthetic Fibers of the Moscow Textile
Institute. Khim.volok. no.3:78-79 '61.   (MIRA 14:6)

1. Moskovskiy tekstil'nyy institut.
        (Textile fibers, Synthetic—Study and teaching)

KRYLOVA, R.G.

20-6-19/48

AUTHORS: Golova, O. P., Pakhomov, A. M., Andriyevskaya, Ye. A., Krylova, R.G.

TITLE: On the Mechanism of the Thermal Decomposition of Cellulose in a Vacuum and on the Formation of 1,6-Anhydro-1,5-Glucopyranose, a Levoglucosan (O mekhanizme termicheskogo raspada tsellyulozy v vakuume i obrazovanii 1,6-angidro-1,5-glyukopiranozy - levoglyukozana)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 115, Nr 6, pp. 1122-1125 (USSR).

ABSTRACT: Hitherto there did not exist an unequivocal explanation for the formation mechanism of the substances last-mentioned in the title in thermal cellulose decompositions in a vacuum. It is true that this substance has an elementary composition of a structural-unit-member of cellulose, but it has a different hydroxyl position (at C_4 instead of C_6) and possesses 2 oxygen bridges instead of one 1 - 5, A formation mechanism of levoglucosan was suggested by Irvine and Oldham, namely through an intermediate stage of the cellulose hydrolysis as far as glucose and then a dehydration of the latter. Karrer confirmed this hypothesis by high levoglucosan yields from β - d-glucose. The above-mentioned reaction represents a special case of the thermal depolymerization of polysaccharides as far as the monomer. The authors thought it necessary to perform such investigations which are suitable to furnish data for the solution of principal problems. Such principal

Card 1/3

On the Mechanism of the Thermal Decomposition of Cellulose in a Vacuum and on the Formation of 1,6-Anhydro-1,6-Glucopyranose, a Levoglucosan.

20-6-19/48

problems are: 1) To attain a constant yield of levoglucosan in this connection, 2) the possibility of the formation of levoglucosan from β - d-glucose, 3) the influence exerted by the physical structure (compactness of the packing) of cellulose on its thermal decomposition and 5) the influence of the degree of polymerization. The following conclusions were drawn from the results of the work: 1) The small yield of levoglucosan from the thermal decomposition of an easily hydrolyzable cellulose, the glucose and the cellobiose with admixture of glucose, disproves the possibility of the existence of intermediate stages of the glucose-formation and the glucose-dehydration as far as levoglucosan, as an intermediate stage in the formation of levoglucosan from cellulose. These facts do not confirm the conception, spread in publications, on the mechnism of a hydrolytic dehydration-formation of levoglucosan. 2) The substantial yield in the formation of levoglucosan (55-60%) is only attained when a certain chain-length of the cellulose macromolecule exists. Moreover a more compact cellulose-structure (packing) is necessary for this. The formation process of levoglucosan includes

Card 2/3

On the Mechanism of the Thermal Decomposition of Cellulose in a   20-6-19/48.
Vacuum and on the Formation of 1,6-Anhydro-1,5-Glucopyranose, a Levoglucosan.

        the decomposition of the cellulose molecule on the 1,4-β-glucose
        bonds, as well as a subsequent isomerization of the resulting chain
        fragment into a levoglucosan molecule. The chief conclusion can be
        extended to the thermal decomposition of other polysaccharides, and
        probably also to other types of polymers.
        There are 1 figure, 2 tables and 1 Slavic reference.

ASSOCIATION: Institute for Organic Chemistry AN USSR imeni N. D. Zelinskiy and
        Forestry Institute AN USSR (Institut organicheskoy khimii imeni N. D.
        Zelinskogo Akademii nauk – Institut lesa Akademii nauk SSSR.).

PRESENTED: By I. N. Nazarov, Academician, June 7, 1957

AVAILABLE: Library of Congress

Card 3/3

KRYLOVA, R. G.

AUTHORS: Golova, O. P., and Krylova, R. G.   20-3-19/46

TITLE: Thermal Decomposition of Cellulose and its Structure
             (Termicheskiy raspad tsellyulozy i yeye stroyeniye).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 3, pp. 419-421 (USSR)

ABSTRACT: The authors derived new knowledges from the study of the
             decomposition of cellulose which lead to a series of
             suppositions concerning the mechanism of the decomposition
             and the structure of cellulose. This was achieved by
             admitting the reagent to the compositions in more solidified
             parts. The used material was cotton cellulose prepared in
             mild conditions according to Corey and Grey. Its degree
             of initial polymerization was 2800; and 1500 (Sample number 1
             and 2), as well as 700 (sample number 3 obtained from sample
             number 2 by means of a light hydrolysis). The investigation
             comprised 1) - Performance of the decomposition,
             2) - Production and analysis of its products, 3) - determina-
             tion of the characteristics of cellulose even after its
             exposure to heating during a certain period. The methodology
             is described. A temperature of 300°C which permits a
Card 1/4   considerable yield of levoglucosan with a sufficiently

Thermal Decomposition of Cellulose and its Structure   2C-3-19/46

decelerated process was determined. The results are
summarized in table 1. In the case of thermal decomposition
of cellulose the degree of polymerization first declines
rapidly. The course taken by the curve, varies in each
case according to the individual cellulose preparation.
After 8 to 10 minutes, a certain critical point is attained
in which all 3 curves coincide. With that the degree of
polymerization attains a constant value of 200, according
to size. With the decomposition continued, only the quantity
of cellulose decreases, whereas the molecular weight of the
remainder remains stable. Curve 4 describes the dependence
of the degree of decomposition of the heating up period
That degree attains 8 to 4 % at the critical point. It is
proportional to the heating up period with all samples.
Curves 5 and 6, - dependence of the yield of levoglucosan
on the heating up period, - show that after the critical
value of the period (degree of polymerization approx. 200)
has been attained, the yield of levoglucosan increases
rapidly for subsequently attaining a constant value. Based
upon these new knowledges, the following mechanism of
decomposition can be imagined: Chain molecules are torn and
fragments with a degree of polymerization of approx. 200 are

Card 2/4

accumulated up to the critical point. This signifies that the decomposition takes place first at the periodically placed sections. The dehydration now taking place chiefly, leads to a radical change of the elementary member and to the formation of light volatile products. In the second period (after having exceeded the critical point), the thermal decomposition takes the course of a process of successive chemical conversion of members of the cellulose molecule fragment by splitting up of the elementary member, which, due to an interior isomerization converts into a monomeric compound, viz.: Levoglucosan. These facts allow the conclusion that the splitting up of the levoglucosan molecule from the chain molecule produces an active center which in return produces an inner isomerization of the following member and the formation of levoglucosan. This process takes place as long as all fragment members are decomposed. The process generated in any chain molecule results thus in the complete decomposition of the molecule. The other molecules remain unchanged in this case. These results prove a periodical structure of the cotton cellulose molecule of sections of various physical structure which

Card 3/4

Thermal Decomposition of Cellulose and its Structure   20-3-19/46

does not only determine the chemical, thermal and physical
behavior of the macro-sample of the cellulose, but also
the individual molecule of the latter.
There are 1 figure, and 2 references, 1 of which is Slavic.

ASSOCIATION: Institute of Silviculture AN USSR
(Institut lesa Akademii nauk SSSR)

PRESENTED: June 29, 1957, by V. A. Kargin, Academician

SUBMITTED: June 29, 1957

AVAILABLE: Library of Congress

Card 4/4

GOLOVA, O.P.; KRYLOVA, R.G.; NIKOLAYEVA, I.I.

Mechanism of the thermal decomposition of cellulose in a vacuum.
Part 1: Comparative study of the thermal decomposition of cotton
cellulose and cellulose hydrate. Vysokom. soed. 1 no.9:1295-1306
S '59.   (MIRA 13:3)

1.Institut lesa AN SSSR.
                        (Cellulose)

5(4)
AUTHORS:

Gatovskaya, T. V., Golova, O. P.,
Krylova, R. G., Kargin, V. A.   SOV/76-33-6-39/44

TITLE:

Investigation of the Sorption Properties of Cellulose in the
Process of Its Thermal Disintegration (Issledovaniye
sorbtsionnykh svoystv tsellyulozy v protsesse yeye termiches-
kogo raspada)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 6, pp 1418-1421
(USSR)

ABSTRACT:

The experimental results of a previous paper (Ref 1) point to
the fact that the process of thermal disintegration of
cellulose (I) in the course of 90 minutes can be divided into
two stages with different peculiarities (Table 1). It is
assumed that the first reaction stage proceeds in less densely
packed (I), whereas in the second reaction stage a higher
packing density prevails and the yield of levoglucosane is
proportional to this density. To investigate the packing
density, a method with the use of sorption isothermals was
applied to the present case. The sorption experiments were
made on one of the investigation samples (Ref 1) of the cellu-

Card 1/3

Investigation of the Sorption Properties of Cellulose   SOV/76-33-5-39/44
in the Process of Its Thermal Disintegration

lose SP-700 which was heated to 300° for 10, 20, 40 and 90 minutes at $1 \cdot 10^{-5}$ mm Hg. The sorption of the steam by (I) decreases with the time of treatment of (I) to a certain value (20 minutes time of treatment) and then remains constant. This points to a condensation of the (I)-packing by a reduction of its polymerization degree (Ref 5). In the first stage of the thermal (I)-disintegration characterized by a sudden rise in the levoglucosane yield, the maximum condensation of the molecule packing of (I) is attained. In a further disintegration of the basic mass of (I), these values remain constant. Thus, the experimental results confirm the previous statements (Refs 6, 7) that the formation of levoglucosane is considerably influenced by the thermal treatment of (I), i. e. its packing density. There are 2 figures, 2 tables, and 7 references, 6 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova,Moskva;Akademiya nauk SSSR,Institut lesa (Physico-chemical Institute imeni L. Ya. Karpov Moscow; Academy of Sciences of the USSR, Forestry

Card 2/3   Institute)

Investigation of the Sorption Properties of Cellulose   SOV/76-33-6-59/44
in the Process of Its Thermal Disintegration

SUBMITTED: December 28, 1957

Card 3/3

GOLOVA, O.P.; KRYLOVA, R.G.

Thermal depolymerization of cellulose. Dokl. AN SSSR 135 no.6:1391-
1394 D '60.   (MIRA 13:12)

1. Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR.
Predstavleno akademikom V.A. Karginym.
                    (Cellulose)

KOVAL'SKIY, V.V., prof.; LETUNOVA, S.V.; KRYLOVA, N.V.; FARBEROV, V.G.

Cobalt in fish culture, biogenic migration of chemical elements in pondy. Priroda 54 no.5:69-70 My '65.

(MIRA 18:5)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR (Moskva).

KRYLOVA, S.I. (Leningrad)

Decembrists and their relation to problems of medical care of
soldiers and the civil population as revealed by P.I.Pestel's
work, "Russian Truth". Sov. zdrav. 20 no.10:68-71 '61.
(MIRA 14:9)

(PUBLIC HEALTH)   (DECEMBRISTS)

L 11108-63   EWT(1)/ECC(w)/ES(v)/BDS   AFFTC/ASD/ESD-3/APGC/SSD   Pe-4/
Pi-4/Po-4/Pq-4   GW   S/0033/63/040/003/0514/0522
ACCESSION NR: AP3001244

AUTHOR: Divari, N. B.; Kry*lova, S. N.

TITLE: Photoelectric observations of zodiacal light at a high-altitude station

SOURCE: Astronomicheskiy zhurnal, v. 40, no. 3, 1963, 514-522

TOPIC TAGS: zodiacal light, atmospheric optics, photometry

ABSTRACT: Observations of zodiacal light made with violet and green filters at
the Tien-Shan station (3000 m above sea level) by means of a specially designed
photoelectric photometer are reviewed. The following formula was used to
determine extraterrestrial brightness:

$$I_{obs} = A(z) + L(b)p^{sec\ z} + R(b, z, p) + ZL(\beta, \lambda)(p + 0.02)^{sec\ z},$$

where $A(z)$ is the atmospheric component of night airglow; $L(b)$ is the stellar
component, i.e., the sky brightness caused by stars and not resolved by the
photometer; $R(b, z, p)$ is the light of these stars scattered by the terrestrial
atmosphere; and p is the coefficient of atmospheric transparency in the spectral
region used. Increasing the coefficient of transparency by 0.02 for zodiacal

Card 1/2

L 11108-63

ACCESSION NR: AP3001244

light accounts for scattering by the terrestrial atmosphere. Brightness
variations along and perpendicular to the ecliptic are given in the form of
functional dependences. The mean isophotes in the violet and green are seen to
correspond to the conical configuration of the zodiacal light. The axis of the
zodiacal light is close to the ecliptic but somewhat north of it in the case of
small elongations of the isophotal peaks and south of it in the case of large
elongations. The color index of zodiacal light in the B—V system was found to
be 0.47 ± 0.03. The color of zodiacal light is believed to be similar to that
of the sun. Since no systematic decrease of the color index with increased
ecliptical latitude is observed, it is concluded that zodiacal twilight exerts
very little influence on the brightness of the zodiacal light. The color index
along the almucantar is found to be independent of azimuth. Orig. art. has:
9 tables, 5 figures, and 3 formulas.

ASSOCIATION: Odesskiy politekhnicheskiy institut (Odessa Polytechnic Institute)

SUBMITTED: 11Apr62   DATE ACQ: 01Jul63   ENCL: 00

SUB CODE: AS   NO REF SOV: 006   OTHER: 006

Card 2/2

L 29267-66   EWT(1)/FCC   GW

ACC NR: AP6019304   SOURCE CODE: UR/0203/65/005/004/0777/0780

AUTHOR: Divari, N. B.; Krylova, S. M.   33
ORG: Odessa Polytechnic Institute (Odesskiy politekhnicheskiy institut)   B
TITLE: Results of photoelectric observations of zodiacal light
SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 4, 1965, 777-780
TOPIC TAGS: zodiacal light, photoelectric property

ABSTRACT: Measurements of the brightness of zodiacal light were made at
Kamenskoye Plato Observatory, using an electrophotometer. Green and
blue glass filters were used for separating out the parts of the spectrum
with effective wavelengths at λ 520 and 470 mμ The diaphragm used cut
out a circle in the sky with an area of 13 square degrees. Measured
brightnesses were expressed in the number of stars of the tenth magni-
tude of class G_2 per square degree. The brightness of the evening zodi-
acal light in the northern part of the sky on the average was approxi-
mately twice as great as the brightness of the morning zodiacal light.
However, in the southern part of the sky their brightnesses virtually
coincide. The color of the zodiacal light can be characterized by the
value 2.5 log (I_{green}/I_{blue}). Although along the ecliptic there is red-
dening of luminescence, there is no basis for assuming that there is a
real dependence of the color of zodiacal light on elongation. Using
measurements at 166 points of the cone of zodiacal light it was found
that 2.5 log (I_{green}/I_{blue}) = -0.027±0.016. Since the corresponding
value for the sun is zero, it can be concluded that zodiacal light vir-
tually coincides with the color of the sun. Orig. art. has: 4 figures and 8 tables.
SUB CODE: 04 / SUBM DATE: 27Aug64 / ORIG REF: 004   [JPRS]
Card 1/1 LC/   UDC: 551.593.653

DIVARI, N.B.; KRYLOVA, S.N.; MOROZ, V.I.

Polarization measurements of zodiacal light. Geomag. i aer. 4 no.5:
881-885 S-O '64.   (MIRA 17:11)

1. Odesskiy politekhnicheskiy institut.

KRYLOVA, S.P.

Dispersion properties of three-dimensional periodic structures.
Uch. zap. Novosib. gos. ped. inst. no.18:27-30 '63.

(MIRA 17:10)

57-9-17/40

AUTHORS   Mikhaylov, G.P.,   Kabin, S.P.
Krylova, T.A.

TITLE   On Dielectric and Mechanical Losses in Low-Pressure
Polyethylene.
(O dielektricheskikh i mekhanicheskikh poteryakh
polietilena nizkogo davleniya)

PERIODICAL   Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 9, pp. 2050-2055
(USSR)

ABSTRACT   The results obtained by experimental investigation are
given. It is shown that $tg\delta$ of the dielectric losses within
the temperature range of from $-110 + + 120^\circ C$ and at
frequencies of from 1.5 to 10 kc passes through two
maximum domains. A comparison is drawn with the analogous
rules for high-pressure polyethylene, and it is shown that
the two types of relaxation losses in the case of low-
pressure polyethylene belong to the high- and low-
frequency relaxation types. Measurements of mechanical
losses carried out by the ultrasonic method in dependence
on te: erature at a frequency of 2 kc proved the existence
of only a high frequency relation. Summarising, it is
stated that the following two types of relaxation losses
exist:

CARD 1/2

On Dielectric and Mechanical Losses in Low-Pressure Polyethylene.

1) High frequency losses reflecting the thermal motion of macromolecule components, and
2) losses, which reflect the thermal motion of macromolecule parts.

It is assumed that the latter are closely connected with the crystalline degree of the polymer.

There are 4 figures and 9 Slavic references.

ASSOCIATION: Leningrad Polytechnic Institute imeni M.I. Kalinin.
                 (Leningradskiy politekhnicheskiy institut imeni M.I. Kalinina.)
SUBMITTED: March 11, 1957.
AVAILABLE: Library of Congress.

CARD 2/2

DUBROVITSKAYA, N.I.; KRYLOVA, T.A.; FURST, G.G.

Some biological characteristics of banana in greenhouses. Biul.
glav.bot.sada no.43:63-71 '61.   (MIRA 15:2)

1. Glavnyy botanicheskiy sad AN SSSR.
                              (Banana)

L 00740-66   EWT(m)/EPT(c)/T   BW/DJ

ACCESSION NR: AP5021990

UR/0286/65/000/014/0065/0065
665.4/.5

AUTHOR: Garganov, G. Ye.; Vinner, G. G.; Maloletkov, Ye. K.; Bogdanov, Sh. K.; Sergiyenko, V. G.; Petyakina, Ye. I.; Selivanchik, Ya. V.; Vertlib, Ya. Ye.; Gusman, M. Ye.; Shamsa, I. Ye.; Smirnov, N. I.; Granat, A. M.; Bulantseva, T. P.; Krylova

TITLE: A method for producing hydraulic fluid. Class 23, No. 172947

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 65

TOPIC TAGS: hydraulic fluid, petroleum product

ABSTRACT: This Author's Certificate introduces a method for producing hydraulic fluid based on petroleum products. The efficiency of the fluid at low temperatures is improved by using a velosite distillate with a flash point of 115-120°C and a viscosity of less than 2200 centistokes at -40°C.

ASSOCIATION: Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi (Scientific Research Institute for Organization, Mechanization and Technical Assistance)

Card 1/2

L 00740-66

ACCESSION NR: AP5021990

SUBMITTED: 14Aug64   ENCL: 00   SUB CODE: FP

NO REF SOV: 000   OTHER: 000

Card 2/2

KRYLOVA, T.B.; BUYEVSKOY A.V. [deceased]; DMITRIYEVA, O.A.

Effect of lignosulfonates on the biochemical processing of
sulfite liquor. Gidroliz. i lesokhim. prom. 17 no.6:3-4 '64.
(MIRA 17:12)

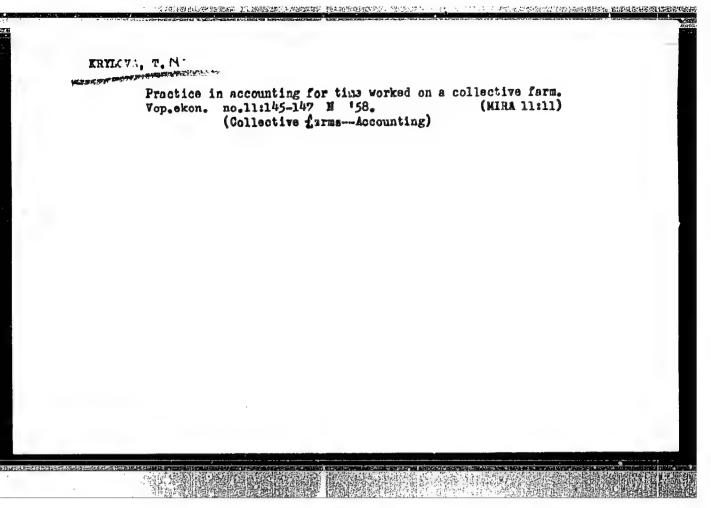1. Leningradskaya lesotekhnicheskaya akademiya im. S.M. Kirova.

KRYLOVA, T.B.; BUYEVSKOY, A.V. [deceased]; DMITRIYEVA, O.A.

Effect of the concentration of lignin sulfonate on the frothing
capacity of a solution during flotation of distiller's yeasts.
Gidroliz. i lesokhim. prom. 17 no.3:5-7 '64.

(MIRA 17:9)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M. Kirova.

KHYLOVA, T.F., fel'dsher

Work of the collective farm milk kitchen. Zdravookhranenie 3
no.1:60-61 Ja-F '60.   (MIRA 13:6)

1. Zaveduyushchaya molochnoy kukhney kolkhoza "Moldova Sochia-
liste", sela Yaloveny Kotovskogo rayona.
                    (INFANTS--NUTRITION)

KRYLOVA, T., nauchnyy sotrudnik

        Bookkeeping on an hourly basis. Nauka i pered. op. v sel'khoz.
        8 no.9:10-11 S '58.   (MIRA 11:10)

        1. Institut ekonomiki AN SSSR.
                      (Collective farms--Accounting)

KRYLOVA, T. N.

Practice in accounting for time worked on a collective farm.
Vop.ekon.   no.11:145-147 N '58.   (MIRA 11:11)
          (Collective farms--Accounting)

LAPTEV, I.D , starshiy nauchnyy sotr.; BUYANOV, P.S., starshiy nauchnyy
sotr.;_KASSIROV, L.N., starshiy nauchnyy sotr.; TERYAYEVA,
A.P., starshiy nauchnyy sotr.; SUVOROVA, L.I., starshiy nauch-
nyy sotr.; SIDOROVA, M.I., starshiy nauchnyy sotr.; SEMIN,
S.I., starshiy nauchnyy sotr.; Prinimali uchastiye: ARKHIPOV,
A.I., mladshiy nauchnyy sotr.; VAZYULYA, P.F., mladshiy na-
uchnyy sotr.; KARLYUK, I.Ya., mladshiy nauchnyy sotr.;
KARNAUKHOVA, Ye.I., mladshiy nauchnyy sotr.; KRYLOVA, T.N.,
mladshiy nauchnyy sotr.; ROMANOVSKAYA, L.S., mladshiy nauchnyy
sotr.; CHISTOV, G.N., mladshiy nauchnyy sotr.; POTAPOV, Kh.Ye.,
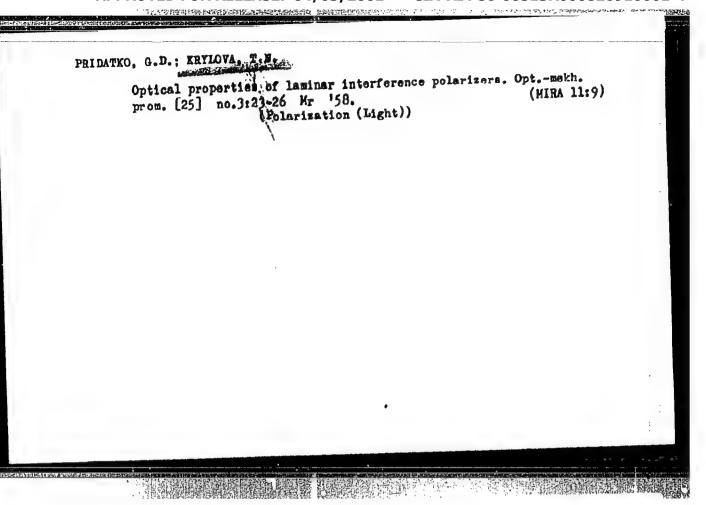red.; GERASIMOVA, Ye.S., tekhn. red.

[Communal funds of collective farms and the distribution of col-
lective farm income] Obshchestvennye fondy kolkhozov i raspre-
delenie kolkhoznykh dokhodov. Moskva, Izd-vo ekon. lit-ry,
1961. 386 p.   (MIRA 15:3)

1. Akademiya nauk SSSR. Institut ekonomiki. 2. Sektor ekono-
miki sel'skogo khozyaystva Instituta ekonomiki Akademii nauk
SSSR (for Laptev, Buyanov, Kassirov, Teryayeva, Suvorova,
Sidorova, Semin).
        (Collective farms—Income distribution)

BRUMBERG, Ye.M.;KRYLOVA, T.N.

Application of dividing mirrors for interferometry in fluorescent
microscopy. Zh. obsh. biol., Moskva 14 no.6:461-464 Nov-Dec 1953.
(CLML 25:4)

PRIDATKO, G.D.; KRYLOVA, T.N.

Optical properties of laminar interference polarizers. Opt.-mekh.
prom. [25] no.3:23-26 Mr '58.
                (Polarization (Light))

(MIRA 11:9)

51- 4 -2-12/28

AUTHOR: Krylova, T. N.

TITLE: Multilayer Dielectric Coatings with a High Reflection
             Coefficient on the Surface of Glass. (Mnogosloynyye
             dielektricheskiye pokrytiya s vysokim koeffitsiyentom
             otrazheniya na poverkhnosti stekla.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, Nr.2, pp.217-224
             (USSR).

ABSTRACT: Calculations were carried out of spectral curves of the
             reflection coefficient of multilayer coatings covering
             glass surface.   Then multilayer coatings were prepared
             and their spectral characteristics measured. Calculations
             were carried out graphically and almost all results were
             checked by an analytic method proposed by Vlasov (Ref.10).
             The main difference between the values obtained graphically
             and those calculated using Vlasov's method occur at
             extrema of the reflection coefficient, particularly at
             maxima.   Fig.1 gives the results of the analytic method
             (continuous curves) and the approximate graphical method
             (dashed curves) for the reflection coefficient on glass
             covered by: (1) one layer with a refractive index 2.2·
Card 1/4   and (2) three layers with refractive indices 2.2, 1.45

51- 4-2-12/28

Multilayer Dielectric Coatings with a High Reflection Coefficient on the Surface of Glass.

and 2.2.   Graphs were obtained (Figs.2 and 3) for three-layer and eleven-layer coatings (with the refractive indices 2.2 and 1.45) on glass with the refractive index 1.52.   For convenience in use the graphs were re-calculated and are shown in Fig.4 as dependences of the reflection coefficient on phase angle for one, three, five, seven, nine and eleven layers respectively (curves 1-6).   A table on p.221 gives the results of calculation of the maximum values of the reflection coefficient of glasses coated with from one to eleven layers.   This table shows that the properties of the glass substrate affect strongly the one-layer coating but are not important in five-layer and thicker coatings.   Calcul-ations of the reflection coefficient curves for glass with multilayer coatings show that positions of the main reflection maxima correspond to wavelengths for which the optical thickness of one layer is an odd multiple of one quarter of the wavelength, i.e. they correspond to phase angles of 180°, 540° etc.   The

Card 2/4   number of secondary maxima which occur between the main

51-4 -2-12/20

Multilayer Dielectric Coatings with a High Reflection Coefficient
on the Surface of Glass.

maxima, is equal to n - 1 for a coating consisting of
n layers. The equality of heights of the secondary
maxima on both sides of the main maximum is a sensitive
criterion of uniformity of thickness of the layers
composing the coating. Multilayer coatings consisting
of up to eleven layers were prepared from titanium and
silicon dioxides by deposition from alcohol solutions
of ethyl esters of orthotitanic and orthosilicic acids
with subsequent drying at 350°C. The refractive indices
of titanium and silicon dioxides are 2.2 and 1.44-1.45
respectively. Figs.5-7 show the reflection coefficient
of glass covered with three, seven and eleven layers of
titanium and silicon dioxides (these two oxides are
deposited alternately one on top of the other). The
continuous curves are calculated graphically and points
(circles) were obtained experimentally. These figures
show satisfactory agreement of experimental and calculated
curves. The differences between the calculated and
experimental curves are ascribed to non-uniformity of
Card 3/4   thickness of the layers deposited. Layers with

51- 4-2-12/23

Multilayer Dielectric Coatings with a High Reflection Coefficient
on the Surface of Glass.

1000-2000 Å optical thickness can be reproduced by
deposition under identical conditions with an accuracy
of ± 50 Å.   This makes it possible to obtain the
reflection coefficient curves with reproducibility of
100-200 Å.   The coatings made of titanium and silicon
dioxides were found to be stable and resistant under
rubbing and cleaning with organic solvents.   There are
7 figures, 1 table and 20 references, of which 5 are
Soviet, 3 English, 4 American, 3 French, 3 German,
1 Czech and one other.

ASSOCIATION: State Optical Institute imeni S.I. Vavilov.
         (Gos. opticheskiy institut im. S.I. Vavilova.)

SUBMITTED: April 19, 1957.

1. Dielectric coatings–Spectrographic analysis 2. Glass–Reflection
   properties–Effects of dielectric coatings 3. Dielectric coatings–
   Reflection properties

Card 4/4

SOV/51-6-6-11/34

24(4)

AUTHOR: Krylova, T.N.

TITLE: Interference Light-Filters Made of Multilayer Dielectrics
(Interferentsionnyye svetofil'try iz mnogosloynykh dielektrikov)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 6, Nr 6, pp 784-787 (USSR)

ABSTRACT: The author has shown (Ref 8) that coatings of alternating layers of
titanium dioxide and silicon dioxide (prepared from alcohol solutions of
easily hydrolysed ethyl esters of orthotitanic and orthosilisic acids)
increase reflection from glass surfaces from 4% to 90% and higher in the
spectral region from 380 to 1200 mμ. Such coatings are stable and
mechanically strong. These coatings can be used to prepare interference
filters with narrow transmission bands. One such filter, consisting of
fifteen layers, is shown in Fig 1. It is made up of a coating of seven
alternating layers of titanium dioxide and silicon dioxide, of optical
thickness $\lambda/4$ each, a layer of silicon dioxide of optical thickness $\lambda/2$,
and a second seven-layer coating identical with the first. The optical
thickness of the layers determines the region in which the transmission
band occurs. Fig 1 shows the transmission coefficients of filters with
seven layers (curve 1), eleven layers (curve 2) and fifteen layers (curve 3).
The fifteen-layer filter passes up to 18% of light in the region of 530 mμ;
its transmission band half-width is 10 mμ. In the regions of 500 and

Card 1/3

Interference Light-Filters Made of Multilayer Dielectrics

600 mμ curve 3 has a background of about 2% but beyond these regions (in both directions) the transmission coefficient rises sharply to reach secondary maxima. These secondary maxima are eliminated by additional filters of coloured glass. Other filters with narrow transmission bands in the region 380-600 mμ were prepared from 7-layer coatings and had properties similar to those represented by curve 3 of Fig 1. Transmission properties of such filters are shown in Fig 2 and the table on p 786; the transmission-band width is seen to increase with the wavelength at which this band occurs. The author prepared also a filter in which the intermediate layer was a dielectric with a high refractive index (titanium dioxide) placed between two coatings consisting of six layers each. The transmission curve of such a filter is shown in Fig 3 (curve 4). The filter passes from 80% of light in the region of 700 mμ; its transmission half-width is 28 mμ and the background outside the transmission band is 8-10% Coloured glass KS17 and multi-layer interference beam splitters were used to eliminate secondary

Card 2/3

Interference Light-Filters Made of Multilayer Dielectrics   SOV/51-6-6-11/34

maxima and lower the background of this filter. The final filter (Fig 3, curve 5) passes 56% of light (transmission half-width 23 mμ, background of the order of 0.1%). Filters for longer wavelengths were made of two 5-layer coatings with a separating layer of silicon dioxide. To decrease the background two identical filters were used together; their transmission is shown by curve 6 in Fig 3. Such a filter passes more than 80% light in the region of 850 mμ (transmission half-width 35 mμ, background 2-5%). In conjunction with coloured glass FS7 and KS15 the latter filter has a transmission of 50%, with a negligible background and a transmission half-width of 30 mμ (Fig 3 curve 7). There are 3 figures, 1 table and 9 references, 2 of which are Soviet, 1 French, 2 English, 3 German and 1 Danish.

SUBMITTED: June 11, 1958

Card 3/3

24(4)   SOV/51-6-6-12/34

AUTHORS: Sokolova, R.S. and Krylova, T.N.

TITLE: Interference Filters for the Ultraviolet Region of the Spectrum
            (Interferentsionnyye fil'try dlya ul'trafioletovoy oblasti spektra)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 6, Nr 6, pp 729-731 (USSR)

ABSTRACT: The chemical method of producing coatings by deposition from easily
            hydrolysed solutions yields strong chemically stable films of thorium
            dioxide (refractive index 2.0) and silicon dioxide (refractive index 1.45)
            transparent in the ultraviolet region 220-400 mμ. Using these films
            multilayer beam-splitters and interference filters with a narrow
            transmission band were produced. Beam-splitters for the ultraviolet
            region were made by alternate deposition of thorium dioxide and silicon
            dioxide films, of optical thickness $\lambda/4$, on a fused-quartz plate. A
            beam-splitter consisting of 11-15 layers reflects, at its maximum,
            90-95% of the incident light; position of the maximum is determined
            by the optical thickness of the layers. Spectral characteristics of
            some beam-splitters are shown in Fig 1, which gives the values of the
            spectral transmission coefficient measured by means of a photoelectric
            spectrophotometer. Fig 1 shows that the width of a band with high
            reflection, where transmission does not exceed 5%, is of the order of $\lambda/6$

Card 1/3

Interference Filters for the Ultraviolet Region of Spectrum

to $\lambda/8$. On both sides of the transmission minimum the curves rise sharply and the transmission coefficient reaches quickly values of the order of 80-90%. Using several beam-splitters, one can make filters with various properties. The interference filters for the ultraviolet region, prepared by the authors, were of two types. In filters of type I an intermediate layer of $\lambda/2$ thickness of silicon dioxide is placed between two 7-layer coatings consisting of alternate layers of thorium dioxide and silicon dioxide. In filters of type II an intermediate thorium dioxide layer of $\lambda/2$ thickness is placed between two 6-layer coatings. Fig 3 shows the transmission spectra of three filters. Filter No. 2 which is of type I, transmits 72% of light in the region of 280 mμ and the half-width of the transmission band is equal to 6 mμ. Filter No. 3 is of the II type; its transmission band lies in the region of 370 mμ and its half-width is 12 mμ; its transmission maximum is ~90%. The background in filters Nos. 2 and 3 varies between 6 and 10%. Curves 2a and 3a in Fig 3 show the transmission coefficients of the filters Nos. 2 and 3 respectively, each combined with coloured glass which removes the secondary maxima. To decrease the background in the region 300-400 mμ the authors used multilayer beam-splitters described above. A combined filter No. 2 includes glass UFS-1 and four beam-splitters; its trans- mission maximum is now 30% and the transmission band half-width is reduced

Card 2/3

SOV/51-6-6-12/34

Interference Filters for the Ultraviolet Region of Spectrum

to 8 mμ (curve 2a in Fig 3). Filter No. 3, combined with glasses
NS-1 and SZS-10, transmits 57% and its half-width is 12 mμ (curve 3a
in Fig 3). No glasses were available which could be used to remove the
secondary maxima in the region 230-250 mμ. The transmission band of a
filter working in this region is shown by curve 1 in Fig 3; it transmits
27% at 230 mμ and its transmission band half-width is 8 mμ. The table
on p 791 gives the properties of several filters with transmission bands
in the region 230-400 mμ. Filters of the I type work in the region
230-300 mμ and those of the II type work in the region 300-400 mμ. Using
coloured glass and beam-splitters the background in the visible region
up to 690 mμ (and sometimes up to 1 μ) could be removed. Filters of
alternate thorium dioxide and silicon dioxide layers were found to be
stable and they did not require protection from the action of atmospheric
air. There are 3 figures, 1 table and 11 references, 4 of which are
Soviet, 3 English, 2 German, 1 French and 1 Dutch.

SUBMITTED: July 10, 1958

Card 3/3

84689

9.4160 (3201, 1105, 1137)
243000 1130, 1138, 1051

8/051/60/009/005/010/019
E201/E191

AUTHORS: Krylova, T.N., and Bagdyk'yants, G.O.

TITLE: A Study of the Optical Properties and Structure of Titanium Dioxide Layers

PERIODICAL: Optika i spektroskopiya, 1960, Vol.9, No.5, pp 644-647

TEXT: Thin layers of titanium dioxide are widely used in optics and elsewhere. Titanium dioxide occurs naturally in two crystal forms: anatase and rutile. Layers of titanium dioxide produced by hydrolysis of titanium tetrachloride or by other chemical means are usually amorphous. The present paper describes a study of the optical properties and structure of amorphous titanium dioxide layers prepared from $Ti(OC_2H_5)_4$ solutions. The authors measured the reflection coefficient (R) as a function of wavelength and layer thickness (0.15-1 μ) in the visible region. Curves 1 and 2 in Fig. 1 show the spectra of layers with optical thicknesses of 4300 and 3500 Å. Layers which were denser in the optical sense could be prepared by successive deposition (curve 3 shows the reflection spectrum of such a composite layer). Fig. 2 gives the dispersion curves (refractive index against wavelength)
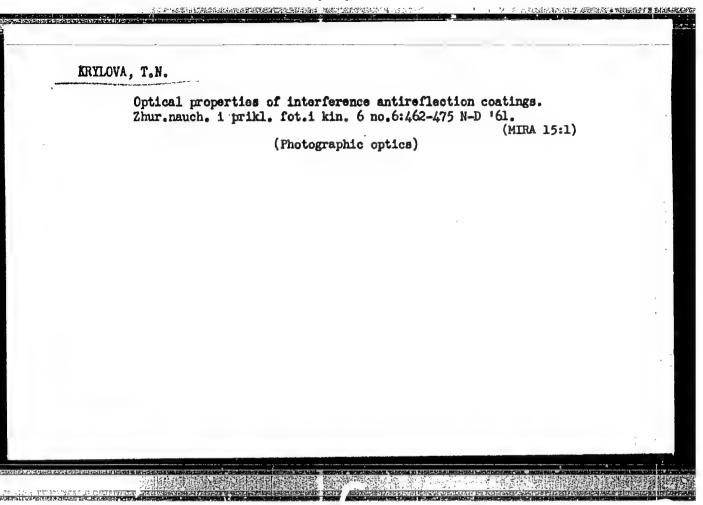
Card 1/2

84689

S/051/60/009/005/010/019
E201/E191

A Study of the Optical Properties and Structure of Titanium
Dioxide Layers

for layers produced from dilute (curves 1 and 2) and concentrated
(curve 3) solutions. The refractive indices plotted in Fig. 2
were calculated from the reflection coefficient R. Fig. 2 gives
also de Vore's (Ref. 1) and Hass's (Ref. 6) results for mono-
crystals of rutile and anatase (curves 4 and 5 respectively).
Curve 6 represents $TiCl_4$ layers dried at 300 °C. The
temperature dependence (100-900 °C) of the refractive index in the
500-550 mμ region (Fig. 3) and the temperature dependence of the
electron-diffraction patterns (Fig. 4 and a table on page 647) show
that the layers begin to crystallize as anatase at 300-350 °C.
There are 4 figures, 1 table and 8 references: 5 Soviet,
2 English and 1 French.

SUBMITTED: February 27, 1960

Card 2/2

KRYLOVA, T.N.

Optical properties of interference antireflection coatings.
Zhur.nauch. i prikl. fot.i kin. 6 no.6:462-475 N-D '61.
(MIRA 15:1)
(Photographic optics)

AUTHORS: Sokolova, R.S., Krylova, T.N.

TITLE: Multilayer light beam splitters consisting of layers
            of unequal optical thickness

TEXT: Previous work (ONTI, 1956; Opt. i spektr., v.4, 1959, 217;
Tr. GOI, v.24, no.145, 1956, 159) has shown that the spectral
curve of the reflection coefficient for a multilayer beam splitter
consisting of layers of equal optical thickness contains a number
of principal maxima and several secondary maxima located
symmetrically relative to the latter.   The secondary maxima may
reach 40% or more.   It is now shown that the height of these
subsidiary maxima may be considerably reduced if the layers are
not equal in thickness.   In order to investigate this in detail
the authors have computed the spectral curves for 3 to 11 layer
beam-splitters consisting of alternate layers of thorium dioxide
$(n = 2.0)$ and silicon dioxide $(n = 1.45)$ on a fused quartz base
$(n = 1.46)$.   The calculations were based on the recurrence method
put forward by I.V.Grebenshchikov, A.G.Vlasov and B.S.Neporent

Card 1/2

Multilayer light beam ...

S/051/62/012/006/013/020
E032/E414

(Prosvetleniye optiki, GITTL. M.-L., 1946).   The computed
curves were then verified experimentally.   It was found that the
subsidiary maxima could be reduced by a factor of 4 without
affecting the height of the principal maxima.   The optical
thickness ratios for the alternate layers which were used were
1.5 : 1,   2 : 1,   and 3 : 1.   It was found that the addition of a
$\lambda/8$ layer with a low refractive index on top of the usual equal-
thickness beam-splitters gives rise to an effective reduction in
the optical thickness of the layers with the higher refractive
index.   There are 7 figures.

SUBMITTED: April 21, 1961

Card 2/2

S/051/63/014/003/011/019
E039/E120

AUTHORS: Sokolova, R.S., and Krylova, T.N.

TITLE: Interference polarizers for the ultraviolet region
             of the spectrum

PERIODICAL: Optika i spektroskopiya, v.14, no.3, 1962, 401-405.

TEXT: The degree of polarization in reflected and transmitted
light is given by:

$$\frac{R_s - R_p}{R_s + R_p} \quad \text{and} \quad \frac{T_s - T_p}{T_s + T_p}$$

where R_p, R_s, T_p and T_s are coefficients of reflection and
transmission for parallel and perpendicular components.
Hence for 100% polarization in reflected light the parallel
component must be eliminated, which is only possible by keeping
strictly to the Brewster angle condition. Two systems are
investigated: a cubic polarizer with angle of incidence of light
on the coating equal to 45°, and a system of two right angled quartz
prisms with strict adherence to the Brewster angle condition.

Card 1/2

Interference polarizers for the ...   S/051/63/014/003/011/019
E039/E120

Thorium dioxide with a refractive index $n = 2$ and silicon dioxide $n = 1.45$ are used to form the alternate $\lambda/4$ layers and 3, 5, 7, 9, 11 and 13 layer systems are investigated. The maximum value of reflection coefficient for the perpendicular component increases quickly with increase in number of layers and approaches unity in the 11 and 13 layer coatings. There is at the same time a broadening in the wavelength range for high reflectivity, i.e. from 20 mµ for 3 layers to 90 mµ for 13 layers. It is shown that polarizers possessing a high degree of polarization (> 99%) can be made with a light transmission of about 40% in the range 300 – 400 mµ, and about 35 – 40% in the range 250 – 300 mµ. A combination of two coatings with maximum polarization in different parts of the spectrum enables a high degree of polarization to be attained in the region 250 to 400 mµ.
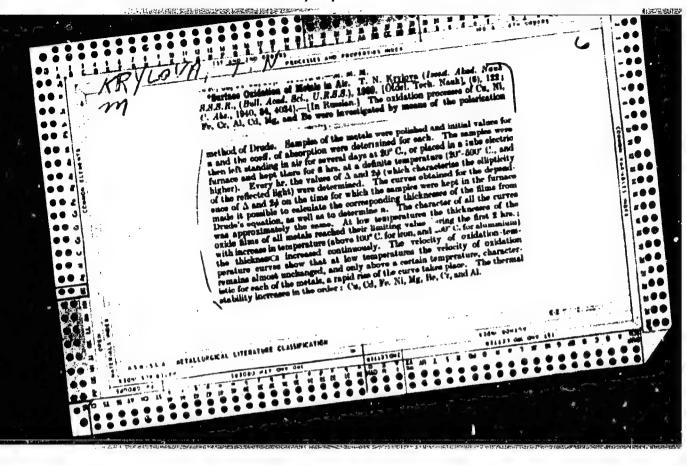There are 7 figures and 1 table.
SUBMITTED: May 18, 1962

Card 2/2

KRYLOVA, T. N.
m

"Surface Oxidation of Metals in Air. T. N. Krylova (Inst. Abad. Nauk R.S.R., (Bull. Acad. Sci., U.R.S.S.), 1940. (Otdel. Tech. Nauk) (9), 122; C. Abs., 1940, 34, 4024).—(In Russian.) The oxidation processes of Cu, Ni, Fe, Cr, Al, Cd, Mg, and Be were investigated by means of the polarization method of Drude. Samples of the metals were polished and initial values for n and the coeff. of absorption were determined for each. The samples were then left standing in air for several days at 20° C., or placed in a tube electric furnace and kept there for 4 hrs. at a definite temperature (20°–500° C., and higher). Every hr. the values of Δ and 2ψ (which characterize the ellipticity of the reflected light) were determined. The curves obtained for the depend. ence of Δ and 2ψ on the time for which the samples were kept in the furnace made it possible to calculate the corresponding thicknesses of the films from Drude's equation, as well as to determine n. The character of all the curves was approximately the same. At low temperatures the thicknesses of the oxide films of all metals reached their limiting value during the first 2 hrs.; with increase in temperature (above 100° C. for iron, and 400° C. for aluminium) the thicknesses increased continuously. The velocity of oxidation-temperature curves show that at low temperatures the velocity of oxidation remains almost unchanged, and only above a certain temperature, character. istic for each of the metals, a rapid rise of the curve takes place. The thermal stability increases in the order: Cu, Cd, Fe, Ni, Mg, Be, Cr, and Al.

METALLURGICAL LITERATURE CLASSIFICATION

ACC NR: AP6017973　　　　　　　　　SOURCE CODE: UR/0413/66/000/010/0073/0073

INVENTORS: Baranov, V. K.; Protasov, N. N.; Krylova, T. N.; Suyetin, V. F.

ORG: none

TITLE: A method for preparing a selectively reflecting mirror. Class 32, No. 181792

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 73

TOPIC TAGS: zinc compound, magnesium compound, nickel, chromium, titanium compound, silicon compound, mirror, radiation

ABSTRACT: This Author Certificate presents a method for preparing a selectively reflecting mirror. The method involves consecutive deposition of the interference layers of zinc sulfide and magnesium fluoride, or of titanium dioxide and silicon dioxide onto the underside of the interference layers. To absorb radiation passed by the interference coating, the metallic undercoat is previously covered with an absorbing layer of rough nickel or of rough chromium.
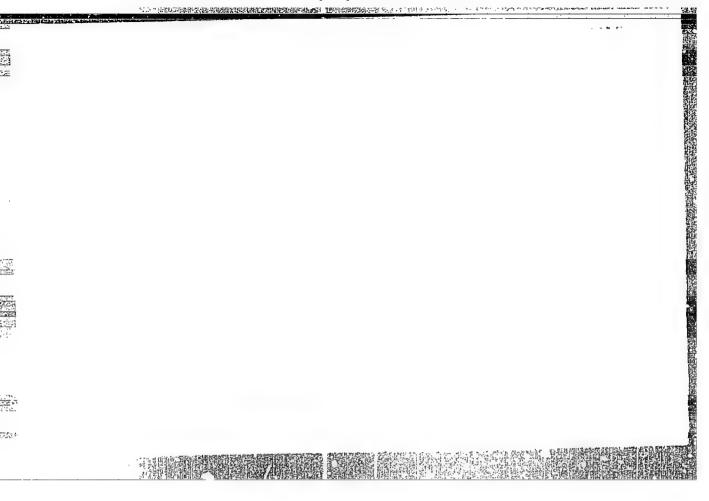
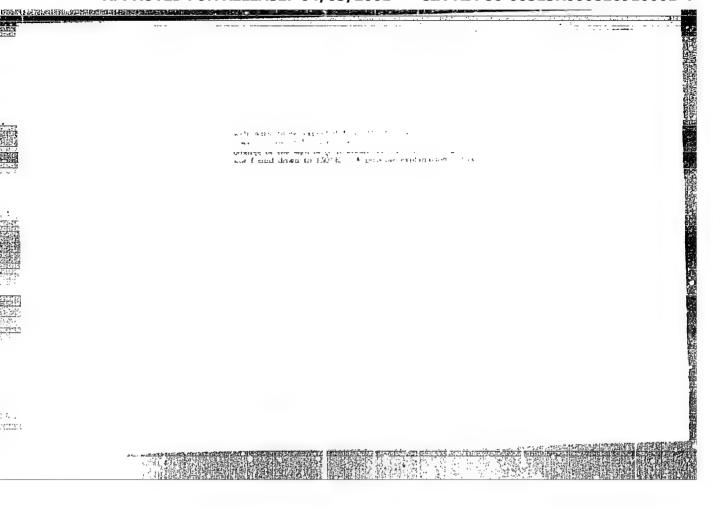SUB CODE: 20/　07/　　SUBM DATE: 25Mar65

Card 1/1　　　　　　　　　　　　　　　　　　　　　UDC: 666.1.056

KRYLOVA, T.P.

Introducing guillotine shears with a pneumatic drive. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 18 no.7:48-49 Jl '65.   (MIRA 18:9)

KRYLOVA, T.V. (L'vov)

The functional condition of the liver in rheumatic children
treated with ACTH [with summary in English]. Probl.endok. i
gorm. 4 no.2:88-91 Mr-Ap '58
(MIRA 11:5)

1. Iz L'vovskogo nauchno-issledovatel'skogo instituta okhrany
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dotsent I.M. Rudnev i kandidat biologicheskikh nauk N.A. Zemtsova).
    (ACTH, therapeutic use
        rheum.heart dis. & rheum. fever in child, eff. on liver
        funct. (Rus))
    (LIVER, physiology
        eff. of ACTH ther. of rheum. heart dis. & rheum.
        fever in child. (Rus))
    (RHEUMATIC HEART DISEASE, therapy
        ACTH, eff. on liver funct. in child. (Rus))
    (RHEUMATIC FEVER, therapy
        ACTH, eff. on liver funct. in child. (Rus))

KRYLOVA, T. V., Cand Med Sci -- "Functional state of the
liver in rheumatism of children." (Min of Health UkSSR.
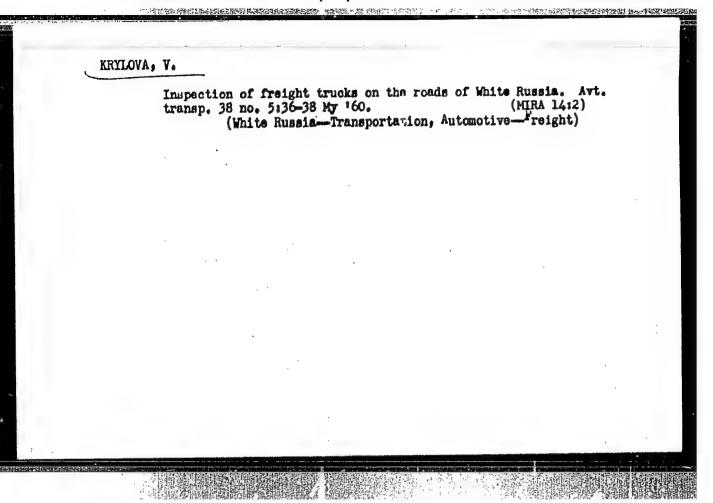
L'vov State Med Inst) (KL, 8-51, 262)

1. KRYLOVA, U. M.

2. USSR (600)

4. Leather, Artificial

7. How we achieved excellent work indexes. Leg. prom. no. 12, 1952

KRYLOVA, V.

Inspection of freight trucks on the roads of White Russia. Avt.
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          (White Russia—Transportation, Automotive—Freight)

IVANOV, I.D.; RAKHIEYEVA, Ye.Ye.; KRYLOVA, V.G.

Effect of deoxyribonucleic acid and diisopropyl
fluorophosphate on the polarographic wave of subtilisin.
Dokl. AN SSSR 146 no.4:941-944 O '62.   (MIRA 15:11)

1. Institut biokhimii im. A.N. Bakha AN SSSR.
Predstavleno akademikom A.I. Oparinym.
    (Subtilisin) (Nucleic acids) (Phosphates) (Polarography)

IVANOV, I.D.; RAKHLEYEVA, Ye.Ye.; KRYLOVA, V.G.

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an inhibitor during irradiation with ultraviolet light. Ukr.
biokhim.zhur. 34 no.5:678-687 '62.   (MIRA 16:4)

1. Institut biokhimii im. A.N.Bakha AN SSSR.
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IVANOV, I.D.; RAKHLEYEVA, Ye.Ye.; KRYLOVA, V.G.

Polarographic wave and catalytic activity of chymotrypsin
in the presence of a substrate, inhibitor, and DNA in the
process of irradiation with ultraviolet light. Ukr.biokim.
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1. A.N.Bach Institute of Biochemistry of the Academy of Sciences
of the U.S.S.R.
        (CHYMOTRYPSIN)   (ULTRAVIOLET RAYS)   (POLAROGRAPHY)

NAZAROV, M.S.; OVSYANNIKOV, N.G.; SOYUZOV, A.A.; MITAISHVILI, A.A.;
     YUDIN, P.G.; SOLOV'YEV, I.F.; SVIRIDOV, A.A.; RUMYANTSEV, S.M.;
     KOLICHENKO, K.N.; NIKULIN, M.R.; ORLOV, D.A.; MAYORSKIY, G.I.;
     SEMENOV, I.Ya.; SUTYRIN, M.A.; KOVALEV, A.I.; VLASOV, A.A.;
     LEVIN, Ya.L.; KLIMOVITSKIY, A.Z.; METAL'NIKOV, G.F.; PANUSHKIN,
     G.P.; CHECHETKIN, A.V.; MIKHEYEV, V.D.; KOLOKOL'NIKOV, K.A.;
     MOISEYEVA, A.I.; TIRON, G.I.; KRYLOVA, V.F.; GOFMAN, Ya.M.;
     BUDCHANOV, B.F.

K.I. Korshunova; an obituary. Rech. transp. 20 no.12; D '61.
                                              (MIRA 14:12)
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KAZAKOV, Ye.D., red.; KRYLOVA, V.I., red.; KOZLOVSKAYA, M.D.,
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[Shelterbelt afforestation] Lesnye zashchitnye nasazh-
deniia. Moskva, Sel'khozizdat, 1963. 598 p.
(MIRA 17:3)

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ROMANOV, Aleksandr Andreyevich, kand. sel'khoz. nauk; KRYLOVA, V.I., red.;
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[Landscape work in the collective-farm village] Ozelenenie kolkhoz-
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(MIRA 14:6)

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GUBAYDULLIN, Khabib Zilyaltdinovich, kand. sel'khoz. nauk; KRYLOVA, V.I.,
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SOLDATOV, Anatoliy Gavrilovich, kand. sel'khoz.nauk; KRYLOVA, V.I.,
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[Growing high-production oak forests] Vyrashchivanie vysoko-
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i plakatov, 1961. 173 p.   (MIRA 15:1)
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TRAVEN'. Fedor Ivanovich; DUBININ, Petr Stepanovich; KRYLOVA, V.I., red.;
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       [Shelterbelt afforestation] Vyrashchivanie zashchitnykh lesona-
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Khranenie i podgotovka k posevu semian drevesnykh i kustar-
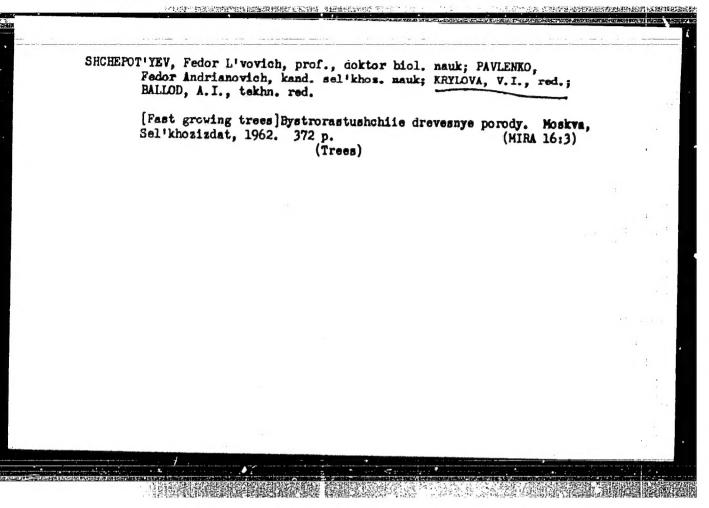nikovykh porod. Moskva, Sel'khozizdat, 1962. 118 p.
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    tekhn. red.

    [Forests of agronomic importance and their management]Lesa
    agronomicheskogo znacheniia i khoziaistvo v nikh. Moskva,
    Sel'khozizdat, 1962. 263 p.   (MIRA 16:2)
        (Windbreaks, shelterbelts, etc.)

SHCHEPOT'YEV, Fedor L'vovich, prof., doktor biol. nauk; PAVLENKO,
Fedor Andrianovich, kand. sel'khoz. nauk; KRYLOVA, V.I., red.;
BALLOD, A.I., tekhn. red.

[Fast growing trees]Bystrorastushchiie drevesnye porody. Moskva,
Sel'khozizdat, 1962. 372 p.   (MIRA 16:3)
                              (Trees)

ROMANOV, Aleksandr Andreyevich, kand. sel'khoz. nauk; KRYLOVA, V.I.,
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forest-steppe zones] Ozelenenie kolkhozov i sovkhozov v step-
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    red.; BALLOD, A.I., tekhn. red.; DEYEVA, V.M., tekhn.
    red.

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